



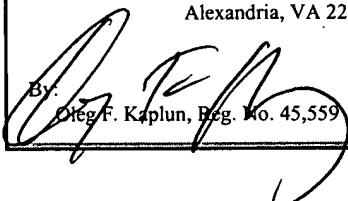
[40116/05601]

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s) : Bunn et al.
Serial No. : 09/615,363
Filing Date : July 13, 2000
For : Virtual-Product Presentation System
Group Art Unit : 3625
Examiner : Mark A. Fadok

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Alexandria, VA 22313-1450

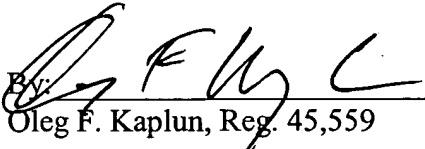
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By:  Oleg F. Kaplun, Reg. No. 45,559	Date: December 7, 2005

TRANSMITTAL

In response to the Notice of Appeal filed September 7, 2005 and the Advisory Action dated August 25, 2005, transmitted herewith please find an Appeal Brief (in triplicate) for filing in the above-identified application. Applicants request a one-month extension. Please charge the Credit Card of **Fay Kaplun & Marcin, LLP** in the amount of \$620.00 (PTO-Form 2038 is enclosed herewith). The Commissioner is hereby authorized to charge the **Deposit Account of Fay Kaplun & Marcin, LLP NO. 50-1492** for any additional required fees. A copy of this paper is enclosed for that purpose.

Respectfully submitted,

Dated: December 7, 2005

By: 
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PATENT
Attorney Docket No.: 40116 - 05601

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of:)	
)	
Bunn et al.)	
)	
Serial No.: 09/615,363)	Group Art Unit: 3625
)	
Filed: July 13, 2000)	Examiner: Mark A. Fadok
)	
For: VIRTUAL-PRODUCT PRESENTATION SYSTEM)	Board of Patent Appeals and Interferences
)	

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APPEAL BRIEF UNDER 37 C.F.R. § 41.37

In support of the Notice of Appeal filed September 7, 2005, and pursuant to 37 C.F.R. § 41.37, Appellants present in triplicate their appeal brief in the above-captioned application.

This is an appeal to the Board of Patent Appeals and Interferences from the Examiner's final rejection of claims 12-17 and 21-33 in the final Office Action dated June 24, 2005. The appealed claims are set forth in the attached Claims Appendix.

1. Real Party in Interest

This application is assigned to Symbol Technologies, Inc., the real party in interest.

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01 FC:1402	500.00 OP
02 FC:1251	120.00 OP

2. Related Appeals and Interferences

There are no other appeals or interferences which would directly affect, be directly affected, or have a bearing on the instant appeal.

3. Status of the Claims

Claims 12-17 and 21-33 have been rejected in the final Office Action. The rejection of claims 12-17 and 21-33 is being appealed.

4. Status of Amendments

All amendments submitted by the Appellants have been entered.

5. Summary of Claimed Subject Matter

The present invention comprises a virtual-product presentation system which includes a central processing unit ("CPU"), a memory, a communications interface, a visual sub-system for simulating images, an auditory sub-system for simulating sounds, a vibratory sub-system for simulating vibrations, a mass simulation sub-system for simulating one or more characteristics of mass, a textural subsystem for simulating a texture, an olfactory sub-system for simulating a smell, a temperature-simulation sub-system for simulating a temperature, a communications bus, and a housing. (See Specification, p. 9, ll. 17-28).

Claim 12 recites a system to present a virtual representation of at least one product for purchase by a user of the system, the system including a processor unit; a memory, coupled to

said processor unit, storing an approximation of an image of said product; a visual sub-system, functionally coupled to said memory and defining a three-dimensional display area, that simulates said image for said user such that a three-dimensional visual representation of said product appears in said display area; a monitor, functionally coupled to said processor unit, to display for viewing by said user a selection including each said product; and a sales unit, coupled to said processor unit, enabling said user to purchase said product.

Claim 17 recites a computer readable storage medium storing a set of instructions that are executable by a processor, the set of instructions performing the steps of simulating a product by generating a three-dimensional visual representation of the product using an image of the product in the storage medium; displaying the three-dimensional visual representation of the product in a three-dimensional display area; enabling a user to select the product; and enabling the user to purchase the product.

As described in the specification, the visual sub-system includes an optical-image projector 211, a mirror 212, a dome 213, and a screen 215. The dome defines a physical space for a projected image and creates the illusion that a physical object is inside the dome. An optional background blocks out background distractions and further enhances the illusion that the object is inside. (See Id., p. 10, ll. 18-25). Figures 3, 10 and 11 illustrate various possible configurations for the visual sub-system. The projector 211 may project an image either directly on the screen 215 inside the dome 213 (See Id., Fig. 10) or onto the mirror 212, which reflects the image onto the screen 215. (See Id., Figs. 3, 11).

During operation of the virtual-product presentation system, a shopper interacts with the system through a touch-screen, browsing for products and receiving abbreviated simulations of the products. (See Id., p. 18, l. 1 - p. 19, l. 15). When the shopper indicates a desire to see a full simulation of a product, characteristics corresponding to the selected product are retrieved and the sub-systems are activated according to the characteristics. (See Id., p. 19, ll. 16-23). For example, when one of the characteristics is visual, the projector emits one or more images approximating the product. The projector may project multiple discrete images, creating three-dimensional reproductions of the product and replicating the product's turning in space. (See Id., p. 20, ll. 3-18).

6. Grounds of Rejection to be Reviewed on Appeal

- I. Whether claims 12-15, 17 and 27 are unpatentable under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,848,399 to Burke ("the Burke patent").
- II. Whether claim 16 is unpatentable under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,848,399 to Burke ("the Burke patent") in view of U.S. Patent No. 6,658,464 to Reisman ("the Reisman patent").
- III. Whether claims 21-26 and 28-33 are unpatentable under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,848,399 to Burke ("the Burke patent") in view of U.S. Patent No. 6,658,464 to Reisman ("the Reisman patent").

patent”) and in further view of U.S. Patent No. 5,590,062 to Nagamitsu (“the Nagamitsu patent”).

7. Argument

I. The Rejection of Claims 12-15, 17 and 27 Under 35 U.S.C. § 102(b) as Being Anticipated by U.S. Patent No. 5,848,399 to Burke Should Be Reversed.

A. The Examiner's Rejection

In the Final Office Action, the Examiner rejected claims 12-15, 17 and 27 under 35 U.S.C. 102(b) as being unpatentable over the Burke patent. (See 6/24/05 Office Action, p. 3). The Burke patent describes a system for generating images representative of a store shelf which consists of a retail space management system for generating information describing product and shelf size and locations in three dimensions. (See the Burke patent, Abstract). The system generates a graphical image of a floor plan of a particular store chosen by a user and displays the image on a television. (Id. at col. 7, lines 8-10; 49-52). The user then selects a product category from the floor plan, and in response, a model of a shelf is created with a plurality of products thereon. (Id. at col. 7, lines 59-65). Upon selecting the product for purchase, an image of the product is removed from the shelf and placed in an image of a shopping cart. (Id. at col. 9, line 63 - col. 10, line 18). The user also has the option of viewing ingredients of the product, whereby “[a] close-up view of the ingredients for the packaged product is then displayed...” (Id. at col. 10, lines 24-25). On a cereal box, for example, an image of a side face which shows the

ingredients is presented to the user. (Id. at col. 10, lines 31-34).

B. The Cited Patent Does Not Disclose a Three-dimensional Display Area, That Simulates Said Image For Said User Such That a Three-dimensional Visual Representation of Said Product Appears In Said Display Area as Recited in Claim 12.

In the Final rejection, the Examiner stated that the Burke patent discloses “a three-dimensional display area, that simulates said image for said user such that a three-dimensional visual representation of said product appears in said display area.” (See 6/24/05 Office Action, p. 3). The Examiner reaffirmed this position in the Advisory Action of August 25, 2005, stating that the rejected claims do not recite “an ‘actual 3d display area.’” (See 8/25/05 Advisory Action). However, Appellants respectfully submit that claim 12 does recite an actual three-dimensional display area, and that the specification of the present application supports this. Claim 12 specifically recites a visual sub-system which defines a three-dimensional area in addition to a separate monitor for displaying product selections. It is well known that two-dimensional displays such as monitors are capable of displaying images which have three-dimensional characteristics. However, these images are confined to a two-dimensional display area. However realistic the images might be in a two-dimensional display, no viewer would mistake the images as being “a three-dimensional visual representation.” As the specification of the present invention describes, the images are displayed such that they appear to occupy the space defined by the dome. (See Specification, p. 10, ll. 21-25). Since the dome itself is three-dimensional, the images take on the three-dimensionality of the dome when projected onto it. In

contrast, a two-dimensional monitor's images remain two-dimensional because the monitor's display is flat. Were the monitor sufficient to produce a three-dimensional representation on a three-dimensional display area, there would be no need for a visual sub-system. However, since the monitor does not comprise a three-dimensional display area, a separate display mechanism (i.e., the visual sub-system) is required. Therefore, the recitation of claim 12 makes it clear that an actual three-dimensional space is required to produce images in accordance with the present invention by reciting both a monitor and a visual subsystem. Therefore, it is respectfully submitted that the Burke patent neither discloses nor suggests "a three-dimensional display area, that simulates said image for said user such that a three-dimensional visual representation of said product appears in said display area," as recited in claim 12. Accordingly, Appellants respectfully request that the Board overturn the Examiner's rejection under 35 U.S.C. § 102(b) of independent claim 12 and all the claims depending directly or indirectly therefrom (claims 13-15 and 27).

Claim 17 recites limitations substantially similar to those of claim 12, including "simulating a product by generating a three-dimensional visual representation of the product using an image of the product in the storage medium" and "displaying the three-dimensional visual representation of the product in a three-dimensional display area." Therefore, Appellants respectfully request that the Board overturn the Examiner's rejection under 35 U.S.C. § 102(b) of independent claim 17.

II. The Rejection of Claim 16 Under 35 U.S.C. § 103(a) as Being Obvious Over U.S. Patent No. 5,848,399 to Burke in view of U.S. Patent No. 6,658,464 to Reisman Should Be Reversed.

A. The Examiner's Rejection

In the Final Office Action, the Examiner rejected claim 16 under 35 U.S.C. 103(a) as being unpatentable over the Burke patent in view of the Reisman patent. (See 6/24/05 Office Action, p. 5). The Reisman patent describes a method for operating a user station configured for communications with a multiplicity of independently-operated data sources via a non-proprietary network which includes the steps of receiving a first data object from one of the data sources and pre-fetching a plurality of additional data objects referenced by the first data object from respective other ones of the independently-operated data sources identified by information embedded in the first data object. (See the Reisman patent, col. 5, ll. 15-24). In support of the rejection, the Examiner stated that the Reisman patent teaches that a Web browser assembles retrieved elements of text, graphics, sound and video into a coherent printable document or playable presentation. (See 6/24/05 Office Action, p. 5).

B. The Cited Patent Does Not Disclose a Three-dimensional Display Area, That Simulates Said Image For Said User Such That a Three-dimensional Visual Representation of Said Product Appears In Said Display Area as Recited in Claim 12.

Appellants respectfully submit that the Reisman patent is insufficient to cure the above-described deficiencies of the Burke patent. Specifically, neither the Burke patent nor the

Reisman patent, either alone or in combination, disclose or suggest “a three-dimensional display area, that simulates said image for said user such that a three-dimensional visual representation of said product appears in said display area,” as recited in claim 12. Because claim 16 depends from and includes the limitations of claim 12, it is respectfully submitted that claim 16 is allowable for at least the same reasons.

In addition, it is also submitted that the Reisman patent is not analogous art. The Reisman patent relates to retrieving data over a computer network. The capability of Web browsers for combining visual and audio elements is well known. However, the Reisman patent neither teaches nor suggests that Web browsers may be used to simulate a product. Even if this were true, the Web browsers would still be limited to presenting visual and audio characteristics of the product, whereas the present invention as recited in claim 12 is directed towards “at least two further characteristics.” As recited in claim 15 (from which claim 16 depends), these characteristics may include texture, mass, smell, temperature, and vibration—none of which Web browsers are capable of simulating. Therefore, Appellants respectfully submit that neither the Burke patent nor the Reisman patent either alone or in combination, disclose or suggest “wherein simulation of at least two further characteristics for said product are provided said user,” as recited in claim 16.

For the reasons described above, Appellants respectfully request that the Board overturn the Examiner’s rejection under 35 U.S.C. § 103(a) of claim 16.

III. The Rejection of Claims 21-26 and 28-33 Under 35 U.S.C. § 103(a) as Being Obvious Over U.S. Patent No. 5,848,399 to Burke in view of U.S. Patent No. 6,658,464 to Reisman and in further view of U.S. Patent No. 5,590,062 to Nagamitsu Should Be Reversed.

A. The Examiner's Rejection

In the Final Office Action, the Examiner rejected claims 21-26 and 28-33 under 35 U.S.C. 103(a) as being unpatentable over the Burke patent in view of the Reisman patent and in further view of the Nagamitsu patent. (See 6/24/05 Office Action, pp. 6-7).

The Nagamitsu patent describes a simulator for producing living environments through visual and auditory perception. (See the Nagamitsu patent, col. 5, ll. 8-14). The simulator includes a stereoscopic viewing unit, an input unit for inputting data required to produce a simulation, a menu generating unit, a menu selecting unit, and a stereoscopic environment producing unit for producing an environment in the viewing unit. (See Id., col. 6, ll. 1-17).

B. The Cited Patent Does Not Disclose a Three-dimensional Display Area, That Simulates Said Image For Said User Such That a Three-dimensional Visual Representation of Said Product Appears In Said Display Area as Recited in Claim 12.

The Nagamitsu patent differs from the present invention in several important respects. Similar to the Burke and Reisman patents, the Nagamitsu patent fails to disclose or suggest "a three-dimensional display area." The viewing unit described by the Nagamitsu patent is a goggle which uses separate cathode-ray-tubes ("CRTs") to display images to each eye of a viewer. (See the Nagamitsu patent, col. 14, l. 34 - col. 15, l.7). Those skilled in the art will

understand that CRTs project images onto a two-dimensional screen. The viewer observes two separate two-dimensional images, which are then processed by the viewer's brain before being perceived as a three-dimensional image. Thus, the viewer does not directly observe a three-dimensional image. Therefore, it is respectfully submitted that neither the Burke patent nor the Reisman patent nor the Nagamitsu patent, either alone or in combination, discloses or suggests "a three-dimensional display area, that simulates said image for said user such that a three-dimensional visual representation of said product appears in said display area," as recited in claim 12.

In further contrast to the present invention, the Nagamitsu patent teaches simulating an environment solely through visual means. The Examiner has stated that the Nagamitsu patent discloses simulating characteristics of a living environment, such as air-conditioning, lighting, and sound. (See 6/24/05 Office Action, pp. 6-7). However, the Nagamitsu aims to provide users with visual means for experiencing these characteristics. For example, a soft-robot which changes colors in response to environmental conditions such as temperature and wind direction is used to visually communicate sensations to the user. (See the Nagamitsu patent, col. 16, ll. 26-43).

Therefore, Appellants respectfully request that the Board overturn the Examiner's rejection under 35 U.S.C. § 103(a) of claims 21-26, which depend from and include the limitations of independent claim 12.

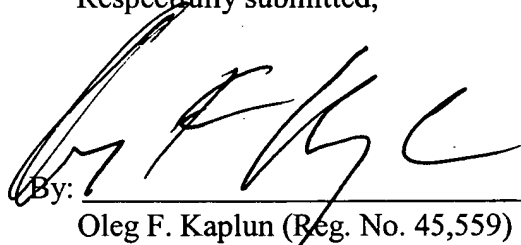
Claim 17 recites limitations substantially similar to those of claim 12, including “simulating a product by generating a three-dimensional visual representation of the product using an image of the product in the storage medium displaying the three-dimensional visual representation of the product in a three-dimensional display area.” Therefore, Appellants respectfully request that the Board overturn the Examiner’s rejection under 35 U.S.C. § 103(a) of independent claims 28-33, which depend from and include the limitations of independent claim 17.

8. Conclusions

For the reasons set forth above, Appellants respectfully request that the Board reverse the final rejections of the claims by the Examiner under 35 U.S.C. § 102(b) and 35 U.S.C. § 103(a) and indicate that claims 12-17 and 21-33 are allowable.

Respectfully submitted,

Date: December 7, 2005


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CLAIMS APPENDIX

1-11. (Canceled)

12. A system to present a virtual representation of at least one product for purchase by a user of the system, the system including:

a processor unit;

memory, coupled to said processor unit, storing an approximation of an image of said product;

a visual sub-system, functionally coupled to said memory and defining a three-dimensional display area, that simulates said image for said user such that a three-dimensional visual representation of said product appears in said display area;

a monitor, functionally coupled to said processor unit, to display for viewing by said user a selection including each said product; and

a sales unit, coupled to said processor unit, enabling said user to purchase said product.

13. The system of claim 12, wherein said memory is network-coupled to said system.

14. The system of claim 12, wherein said memory is coupled to said system via an Internet link.

15. The system of claim 12, wherein simulation of at least one further characteristic for said product chosen from the group of characteristics consisting of: sound, texture, mass, smell,

temperature, and vibration, is provided said user.

16. The system of claim 15, wherein simulation of at least two further characteristics for said product are provided said user.

17. A computer readable storage medium storing a set of instructions that are executable by a processor, the set of instructions performing the steps of:

simulating a product by generating a three-dimensional visual representation of the product using an image of the product in the storage medium;

displaying the three-dimensional visual representation of the product in a three-dimensional display area;

enabling a user to select the product; and

enabling the user to purchase the product.

18-20. (Canceled)

21. A system according to claim 12, wherein said memory further stores an approximation of a sound of said product, said system further comprising a simulation subsystem functionally coupled to said memory that simulates said sound for said user.

22. A system according to claim 12, wherein said memory further stores an approximation of a

texture of said product, said system further comprising a simulation subsystem functionally coupled to said memory that simulates said texture for said user.

23. A system according to claim 12, wherein said memory further stores an approximation of a smell of said product, said system further comprising a simulation subsystem functionally coupled to said memory that simulates said smell for said user.

24. A system according to claim 12, wherein said memory further stores an approximation of a mass of said product, said system further comprising a simulation subsystem functionally coupled to said memory that simulates said mass for said user.

25. A system according to claim 12, wherein said memory further stores an approximation of a temperature of said product, said system further comprising a simulation subsystem functionally coupled to said memory that simulates said temperature for said user.

26. A system according to claim 12, wherein said memory further stores an approximation of a vibration of said product, said system further comprising a simulation subsystem functionally coupled to said memory that simulates said vibration for said user.

27. A system according to claim 12, wherein said visual subsystem comprises a dome defining said three-dimensional display area.

28. The storage medium according to claim 17, wherein the instructions further comprise approximating a sound of the product, and wherein the act of simulating the product further includes simulating the sound of the product for the user.

29. The storage medium according to claim 17, wherein the instructions further comprise approximating a texture of the product, and wherein the act of simulating the product further includes simulating the texture of the product for the user.

30. The storage medium according to claim 17, wherein the instructions further comprise approximating a mass of the product, and wherein the act of simulating the product further includes simulating the mass of the product for the user.

31. The storage medium according to claim 17, wherein the instructions further comprise approximating a smell of the product, and wherein the act of simulating the product further includes simulating the smell of the product for the user.

32. The storage medium according to claim 17, wherein the instructions further comprise approximating a temperature of the product, and wherein the act of simulating the product further includes simulating the temperature of the product for the user.

33. The storage medium according to claim 17, wherein the instructions further comprise

approximating a vibration of the product, and wherein the act of simulating the product further includes simulating the vibration of the product for the user.

34. (Canceled)

35. (Canceled)

Serial No.: 09/615,363
Group Art Unit: 3625
Attorney Docket No.: 40116 - 05601

EVIDENCE APPENDIX

No evidence has been entered or relied upon in the present appeal.

Serial No.: 09/615,363
Group Art Unit: 3625
Attorney Docket No.: 40116 - 05601

RELATED PROCEEDING APPENDIX

No decisions have been rendered regarding the present appeal or any proceedings related thereto.